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OW Management Report

Gold King Mine

August 13, 2015

Gold King Mine Release

Background:

On August 5, while investigating the Gold King Mine in Colorado, an EPA cleanup team triggered a release of mine wastewater into Cement Creek. The EPA is working closely with responders and local, state and tribal officials to monitor water contaminated by the release. The release's path flows through three of the EPA's regions - Region 8 (Colorado, Utah, Southern Ute Tribe, and Ute Mountain Ute Tribe); Region 6 (New Mexico), and Region 9 (Navajo Nation). EPA has activated its Emergency Operations

System to ensure coordination among its regions, laboratories and national program offices in Washington, D.C. The EPA has also set up an incident command center in Durango, CO. The EPA is coordinating with officials in Colorado, New Mexico, Utah, Southern Ute Tribe and Navajo Nation and the Ute Mountain Ute Tribe.

Response Coordination:

The EPA HQ EOC is now fully activated. Shifts will be 8:30 AM – 6 PM, Monday to Friday, and 9:30 AM – 7 PM Saturday and Sunday. Kevin Tingley will tentatively staff the Water Desk through Saturday August 15.

EPA Activities:

Region 8:

EPA initiated a water quality sampling effort on August 5, 2015, to assess the impacts of the release at the Gold King Mine. There were a total of 5 sampling teams deployed on Monday, 8/10/2015, three from the EPA Region 8 and two from Colorado Department of Health and the Environment (CDPHE). There were four river and 30-40 well water samples collected August 10, 2015. The EPA collected surface water quality samples from seven locations; two of these locations were on Cement Creek, and five of these were on the Animas River in Colorado. Well samples were also collected upon request. These locations were selected based on the availability of an historical dataset for these locations. These analysis of these samples include pH, dissolved concentrations of metals, and operational milestones. The CDPHE collected samples from raw and finished drinking water supplies and water samples from the northern segment of the Animas River.

On Tuesday, samples from 19 of the 20 planned sediment sampling locations were completed by the EPA (contractor) sampling teams. Daily residential sampling is occurring. As of 6pm on 8/11/2015, 226 requests had been received. There were 20 private drinking water samples taken on 8/11/2015 with a total 49 of through the end of 2/11/2015. Bottle water shipments from local suppliers have been occurring daily and distributed as requested.

Non-Potable water distribution as of 8-11:

Total deliveries: 16 volume 26,220 Gallons

Stakeholders include Cattle & Horse Farms, Nursery, Fish Hatchery/Fish Ponds, and a commercial organic produce farm

Potable Water Delivery as of 8-11:

Total Deliveries: 6 volume 19,200 gallons

Stakeholders include Single Family Home cisterns and multiple family homes on neighborhood cistern.

224 cases of bottled water have been purchased to hand out to community.

CDPHE continued watershed sampling on Animas River taking samples at four points including one location upstream of where Cement Creek discharges into the Animas. Staff of CDPHE also visited Gold King Mine site portal and water treatment facility and Red Bonita Mine site with the EPA and Southern Ute Tribe representatives. Public water systems regulated by CDPHE in the impacted area are taking raw and finished water samples to monitor water quality. CDPHE is coordinating with City of Durango drinking water treatment staff regarding the Animas River intake. It was not in use at the time of the event and has been off-line pending water quality assessment with CDPHE. Some sediment sampling was also performed.

The EPA Region 8 is distributing bottled water to citizens, and both potable and non-potable water for livestock and other agricultural purposes, as needed.

Region 6:

Water monitoring and sampling is ongoing at public water supply intakes and private wells and field pH levels and other water quality parameters are being monitored.

Private Drinking Water Well Sampling: EPA amended the draft Sampling Plan on

August 12, 2015 to incorporate NMED's additional sampling requests and provided a draft copy to NMED. EPA sampled twenty-two private water wells along the Animas and San Juan Rivers on August 12, 2015. Sampling continues at private water wells within 500 feet of the river and a depth of less than 100 feet.

EPA staff assisted NMED in analyzing the water samples local residents brought to the San Juan County fair. It is estimated that 500 samples have been received by the state mobile lab.

Surface Water and Sediment Sampling: EPA collected 9 surface water and sediment samples from the public drinking water intake locations on August 12, 2015. EPA added cyanide to the list of analytes for August 12, 2015 only. It is EPA Region 6's understanding that cyanide has not been a contaminant of concern at this site. The State requested that EPA test for cyanide for one day to confirm that cyanide is not an issue. All the sample locations on August 11, 2015 had pH levels within the pH range specified by the State of New Mexico.

Agriculture and Livestock Water: On August 12, 2015, EPA delivered 178,401 gallons to eight location for agriculture and livestock needs. The limiting factor is the number of available trucks. We estimate 13 available trucks by the end of the week. San Juan County is coordinating loading points and logistics for staging and scheduling the trucks.

Region 9:

Two Public Water Systems operated by Navajo Tribal Utility Authority (NTUA) draw from or are hydrologically connected with the San Juan. One is receiving hauled water at EPA cost the other has an alternate source which they were using at the time of the spill and since then. Below are some details and attached are 2 NTUA PRs.

The source wells for the NTUA - Montezuma Creek public water system were shut down prior to the contaminant plume reaching the area. Water is being hauled from the NTUA – Aneth water system to fill the storage tanks of the Montezuma Creek water system. The intake to the NTUA Mexican Hat water system was shut down a week prior to the discharge due to high turbidity (i.e., muddy) water in the San Juan River. Standard operating procedure for the Mexican Hat water system is to shut down the intake when high turbidity water is present in the river. Water is being hauled to the Mexican Hat treatment system from the NTUA Oljato water system. The Mexican Hat water system serves the community of Halcito.

Navajo Tribal Utility Authority has initiated sampling of the three wells at Montezuma

Creek and at the intake of the Mexican Hat surface water plant. Samples were collected on Sunday, Monday and Thursday. The samples will be analyzed for the full suite of drinking water regulated IOCs, VOCs and SOCs. Discussions underway to confirm sampling site locations for mapping purposes.

Infrastructure Impacts:

Region 8:

System Name	Population	# Days Water Available
Durango, CO	23,000	Indefinite, using another source
Glacier Club, CO	525	Indefinite, using stored water and another source
No impacted systems in Utah, all have groundwater sources		

Region 6:

Based on conversation with the State of New Mexico and drinking water systems on August 11, 2015, the following is the list of affected water systems and their status:

System Name	Population	# Days Water Available
Aztec Domestic Water System	6800	10 days
Farmington Water System	47000	60 days
Lower Valley WUA	8428	6 days
Morningstar Water Supply System	6423	10 days
Northstar WDWCA	4123	30 days
Southside Mutual Domestic	1593	3-5 days get water from Aztec
Upper La Plata WUA	2265	Get water from Aztec and Farmington
Flora Vista	4300	1 day/get water from Aztec
Total Population	80,392	

Region 9:

No information

Sampling Results: EPA has begun posting sampling results on the public website
<http://www2epa.gov/goldkingmine>